

Claims

1. A display device for a personal device intended to perform financial transactions as well as personal
5 functions other than financial transactions, the personal device including an input for receiving information from a user the display device including;
a display section for displaying information to a user;
10 a financial transaction controller coupled to the display; and
the financial transaction controller being for selectively allowing the display section and input means to operate under the control of the personal device to
15 enable personal functions other than financial transactions to be performed, and being for taking over control of the display section and the input means so that the personal device can perform a financial transaction whilst the display section and input means are under the
20 control of the controller to thereby prevent the tampering with or tapping off of data entered into the input means or stored in the financial transaction controller during the performance of a financial transaction and also the display of information on the display section other than
25 under the control of the financial controller.
2. The display of claim 1 wherein the financial controller is an EFTPOS controller and includes a processor, a display driver connected to the processor and
30 also connected to the display section for driving the display section to display information, and a secure memory coupled to the processor for storing secure data and/or software.
- 35 3. The display of claim 1 wherein the personal device includes controlling electronics, and the display device includes coupling means for coupling the processor

- 24 -

with both the input means and the controlling electronics of the personal device.

4. The display of claim 1 wherein the controller is
5 physically attached to the display section.

5. The display of claim 1 wherein the controller is
physically attached to the display section by integrating
the controller into the display section.

10

6. The display of claim 1 wherein the controller is
integrated into the display section by connecting the
controller to the display section by means of attaching it
to a printed circuit board that would normally house a
15 display controller for controlling the display section.

7. The display of claim 1 wherein the display
section is a liquid crystal display having a glass face
and the controller is directly mounted onto the glass face
20 of the liquid crystal display by a chip on glass process.

8. The display of claim 1 wherein the display device
is mounted to the controlling electronics by a zero
insertion force connector so that disassembly of the
25 personal device will result in disconnection of the
display device from the controlling electronics circuit
board which can provide a trigger to cause data within the
financial controller to be erased to prevent the data from
being illegally accessed.

30

9. The display of claim 1 wherein erasing of data in
the financial transaction controller can be achieved by a
circuit loop-back in the zero insertion force connector so
that the circuit is connected to the display device and
35 completed in the device upon which the display section is
mounted. Thus any removal of the display device will
result in the circuit connection being broken and this

- 25 -

disruption of the circuit is detectable by the controller on the display device to thereby result in the controller causing data, such as banking keys, to be erased so they cannot be illegally accessed.

5

10. The display of claim 1 wherein the input means with which the display device will be used in the personal device is a keypad.

10 11. The display of claim 1 wherein the financial controller is in the form of an application specific integrated circuit.

12. The display of claim 1 wherein the financial
15 controller is a hybrid circuit.

13. The display of claim 1 wherein the financial transaction controller is configured so that it can control a multiplicity of the different displays thereby
20 enabling the controller to be used with a variety of different display devices which may be intended for use in different types of personal devices.

14. The display of claim 1 wherein the personal
25 device includes a communication means for transmitting data relating to the financial transaction to a financial transaction network and for receiving data from the financial transaction network. If the personal device is a mobile telephone the communication means comprises the
30 mobile telephone itself so that data which is assembled and encrypted by the financial controller is supplied to the controlling electronics of the mobile telephone for transmission by way of mobile telephone call to the EFTPOS network and for receiving data back from the EFTPOS
35 network by way of mobile telephone call.

- 26 -

15. The display of claim 1 wherein the device includes a controller input for activation by an operator to place the display device into a secure condition for performing a financial transaction. The control input may
5 be a menu item which can be displayed on the displayed as a person scrolls through a menu or a input button or the like on the device which is activated by the user.

16. A financial transactions device for performing
10 financial transactions as well as personal functions other than financial transactions, the device including;
 an input means for the entry of data into the device;
 a display section for displaying information to
15 a user;
 a financial transaction controller coupled to the display;
 input means for the entry of data coupled to the controller;
20 personal device controlling electronics coupled to the financial transaction controller, for controlling the device to perform personal functions other than financial transactions; and
 the financial transaction controller being for
25 selectively allowing the display section and input means to operate under the control of the controlling electronics to enable personal functions other than financial transactions to be performed, and being for taking over control of the display section and the input
30 means for preventing the controlling electronics from accessing the display and the input means so that the personal device can perform a financial transaction whilst the display section and input means are under the control of the controller to thereby prevent the tampering with or
35 tapping off of data entered into the keypad or stored in the financial transaction controller during the performance of a financial transaction and also the

- 27 -

display of information on the display section other than under the control of the financial controller.

17. The device of claim 16 wherein the financial transaction controller includes a processor, a display driver coupled to the processor and also coupled to the display section, and a secure memory for storing software and/or data, coupled to the processor.
18. The device of claim 16 wherein the controller is physically attached to the display section.
19. The device of claim 16 wherein the controller is physically attached to the display section by integrating the controller into the display section.
20. The device of claim 16 wherein the controller is integrated into the display section by connecting the controller to the display section by means of attaching it to a printed circuit board that would normally house a display controller for controlling the display section.
21. The device of claim 16 wherein the display section is a liquid crystal display having a glass face and the controller is directly mounted onto the glass face of the liquid crystal display by a chip on glass process.
22. The device of claim 16 wherein controller electronics which operate the personal device preferably comprises, with the display section and input means, all of the electronics required in order to operate the personal device for performing personal functions other than financial transactions.
23. A mobile telephone for performing financial transactions as well as mobile telephone calls other than financial transactions, the mobile telephone including;

- 28 -

an input means for the entry of data into the mobile telephone;

a display section for displaying information to a user;

5 controlling electronics for enabling a mobile telephone call to be performed with the mobile telephone;

 a financial transaction controller coupled to the display section for selectively enabling the input means and the display to be coupled to the controlling
10 electronics to enable mobile telephone calls other than financial transactions to be performed and for selectively disconnecting the controlling electronics from the display section and input means and taking over control of the display section and input means so that a financial
15 transaction can be performed under the control of the financial controller without the controlling electronics of the mobile telephone being able to access the display section or the input means.

20 24. The telephone of claim 23 wherein the financial transaction controller includes an EFTPOS controller, a display driver coupled to the EFTPOS controller and to the display section, and a secure memory coupled to the processor for storing security software and/or data.

25 25. The telephone of claim 23 wherein the coupling means is provided for coupling the processor with both the keypad and the controlling electronics of the personal device.

30 26. The telephone of claim 23 wherein the controller is physically attached to the display section.

 27. The telephone of claim 23 wherein the controller
35 is physically attached to the display section by integrating the controller into the display section.

- 29 -

28. The telephone of claim 23 wherein the controller is integrated into the display section by connecting the controller to the display section by means of attaching it to a printed circuit board that would normally house a display controller for controlling the display section.

29. The telephone of claim 23 wherein the display section is a liquid crystal display having a glass face and the controller is directly mounted onto the glass face of the liquid crystal display by a chip on glass process.

30. The telephone of claim 23 wherein the financial transaction controller enables communication between the controlling electronics, the display section and the input means during the performance of personal functions other than financial transactions.

31. The telephone of claim 23 wherein when the device is in the secure condition for performing a financial transaction, the controlling electronics cannot access the display section or the input means but the financial controller can output data to the controlling electronics so that the data can be transmitted in a mobile a mobile telephone call to a financial system network.

25

32. The telephone of claim 23 wherein the input means comprises a keypad.